

A Practical Joke by a Solemn College President.

President David Starr Jordan, of Leland Stanford University, Sends to the Popular Science Monthly a Marvellous Account of a Bogus Scientific Discovery.

THE EXPLANATION.

San Francisco, Cal., Sept. 5. — David Starr Jordan, president of Stanford University, is in Alaska, but Professor Sanford, of the University, explained to the Journal correspondent the history of the astonishing article in the current Popular Science Monthly. It is the broadest kind of satire on the present craze for sensational popular science, and is a joke from beginning to end. It was suggested by Professor Sanford to President Jordan

last April, and President Jordan, with his unlimited capacity for jest and badinage, fell readily into the scheme. Professor Sanford agreed to furnish the cat picture. This he did by photographing the cat of Thompson, the University janitor, (for Thompson is the only genuine personage named in the article, with an ordinary camera.)

He used two plates, and employed varying distances to produce large cats and small, and superimposed one plate over the other in printing.

THE BOGUS DISCOVERY.

David Starr Jordan in Popular Science Monthly.

THE Astral Camera Club of Alcaldie was organized in November, 1895, for purposes of scientific research through the medium of photography. The function of the club was the co-operative study of man's latent psychical powers, that these might be made helpful in the conduct of life. No powers granted to man should be neglected or allowed to waste in idleness. Just as the great physical force of electricity remained for centuries hidden, and known only by casual and unimportant manifestations, so the great odic forces within man still are scarcely revealed.

As soon as the news of the marvellous experiments of Professor Roentgen had reached Alcaldie, the Camera Club began work on the X rays, and on the larger problem of the significance of photography without visible light. They had no difficulty in repeating the usual experiments. They got an outline of the skeleton of a canary, the shadow of an empty pocketbook, the bones of a finger surrounded by a gold ring and the location of an imbedded shot. Thus those strange rays of light, or odic force, invisible to our eyes, because none of our ancestors ever had a chance to gaze upon them, disclosed the presence of objects which had else lain forever in darkness. In addition to this, the green light of the vacuum tubes provoked that uncanny feeling which always precedes and presages a great discovery in occult science. From this feeling the club was safe in predicting that far greater discoveries were to follow, and that the X rays would not end in mere repetitions of Roentgen's triumphs in "radiography."

In this they were not disappointed. Professor Ingils Rogers, of London, found that not only could pictures be produced in darkness by means of invisible force, but that the invisible waves sent out through the ether by the mind could also affect a sensitive plate. Just as one sensitive mind at a distance receives an image sent out from the psychic retina of another, so could the same image be concentrated and fixed upon a photographic plate.

Professor Rogers in a matter-of-fact way looked for a few minutes at a postage stamp, then retired to a dark room and gazed through the lens of the camera at the sensitive plate. The figure of the postage stamp was on his mind, and from his mind it passed out through the sensitive ether to the plate made ready to receive it. The result was a photograph of the stamp—small and a little blurred, but showing the undoubted features of the gracious Queen and the words "one penny." Thus was the bridge between psychic power and photographic sensitiveness made once for all. This connection established, there is naturally no limit to the application of the principle.

It thus becomes plain that the invisible rays of Roentgen are not light in the common sense, but akin rather to the brain emanations, or odic forces, which pass from mind to mind without the intervention of forms of gross matter as a medium, and to which gross matter in all its forms is subject.

At the meeting of the Astral Camera Club in Alcaldie on April 1 of this current year, its president, Mr. Asa Marvin, read a paper on these discoveries, calling attention to their astral significance. The supremacy of mind over matter, already indicated in a hundred ways, was thus splendidly illustrated. As a thousand miles of ether may be made to vibrate at the command of the will of the physical adept, so may the grosser forms of matter be shaken or removed when this subtle and resistless force acts upon it.

The famous legend of Odin and the Golden Mead, as Mr. Marvin went on to show, is not a myth, but was probably an actual occurrence. It may be a reality again when Odin's descendants rival their ancestor in that wisdom for which the famous hero so freely gave his right eye. It is not unlikely that the actual Niflheim, or mist-home, where he exchanged his right eye for wisdom, is to be sought in the Himalayas rather than in Scandinavia.

He had devised a camera with a lens having curved facets arranged on the plan of the eye of the fly. To each one of the seven facets led an insulated tube, provided within by an electric connection, so that electric or odic impulses would be transferred from the brain or retina through the eye of each different observer to the many-faceted lens. From the lens these im-

pulses would be converged on a sensitive plate, as the rays of light are gathered together in ordinary photography.

From the members of the Camera Club, seven of those having greatest natural magnetism and greatest power of mental concentration, were chosen for the experiment. Connection was made from the eye of these observers to the corresponding parts of the lens; then all were to remain in utter darkness and perfect silence, each person fixing his mind on a cat. They were not to think of any particular cat, but of a cat as represented by the innate idea of the mind or ego itself. This was highly important, for the purpose of Mr. Marvin was not simply to fix by photography an ephemeral recollection, as Mr. Rogers and Mr. Lee had done; it was to bring out the impression of ultimate fellow reality. The innate image in the mind was the object desired.

One man's thought of a cat would be individual, ephemeral, a recollection of some cat which he had some time seen, and which by the mind's eye would be seen again. From seven ideals, sympathetically combined, the true cat would be developed. This combination is the essence of sympsychography, a term suggested by Professor Amos Gridley, of Alcaldie, as distinct from the ordinary ideography of Rogers and Lee. The personal equation would be measurably eliminated in sympsychography, while the cat of the human innate idea, the astral cat, the cat which "never was on sea or land," but in accordance with which all cats have been brought into incarnation, would be more or less perfectly disclosed.

In accordance with this plan the experiment was tried under the direction of Mr. Asa Marvin. By the courtesy of the secretary of the club, Miss Corintha Jones, of Alcaldie, we are enabled to present a copy of the resultant sympsychograph in advance of the publication of the regular bulletin of the society in which the apparatus used is figured in detail (see Plate 10).

It will be noticed that this picture is unmistakably one of a cat. But it is a cat in its real essence, the type cat as distinguished from human impressions of individual cats. This achievement, like the earlier ones of Odin, Roentgen, Rogers and Lee, opens great vistas for future scientific research. The next experiment will be by similar means to photograph the cat's idea of man.

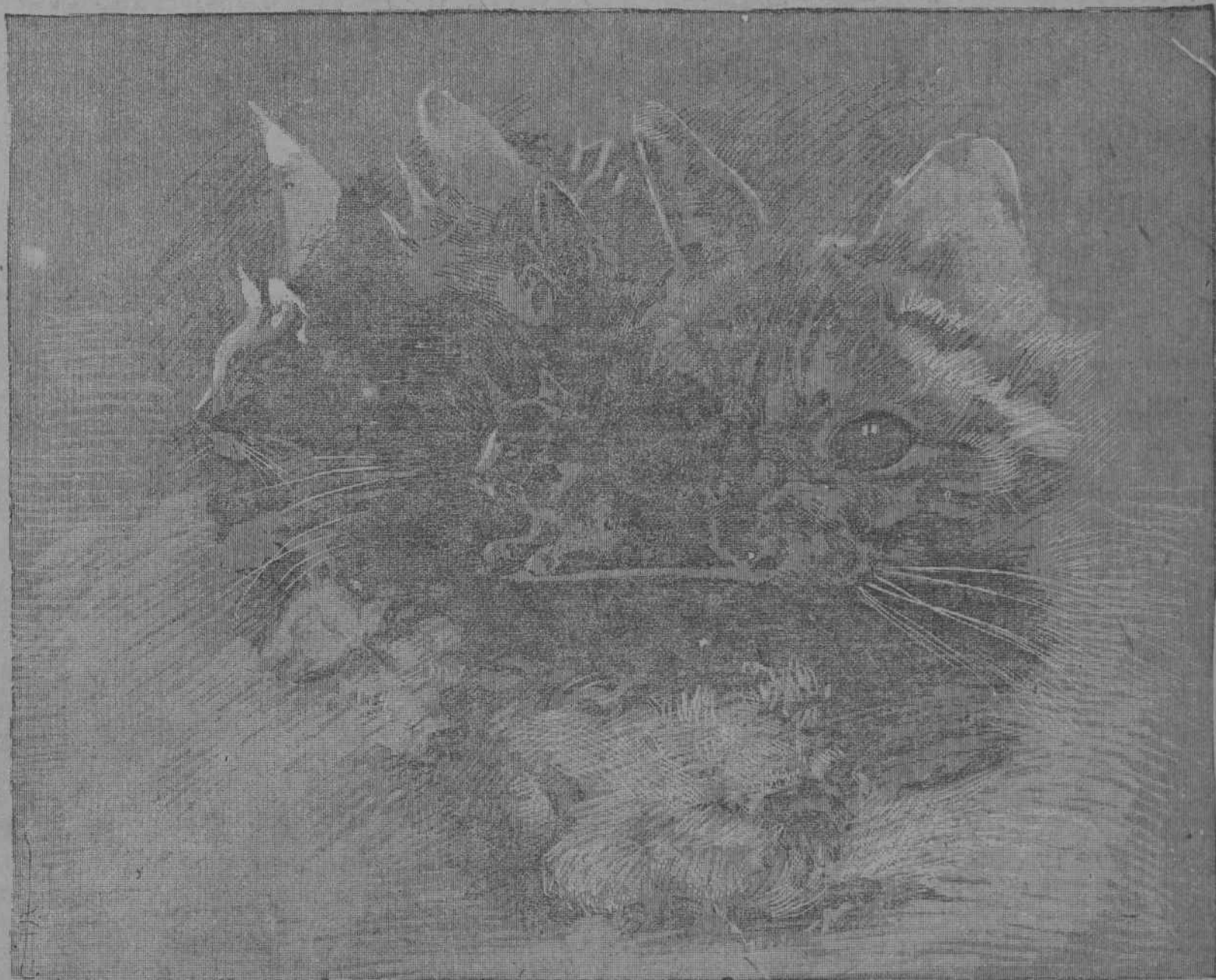
As might be expected in the first attempt, there is a lack of co-ordination of the parts. Mr. Gridley, the schoolmaster, had planned his cat on a large scale, a huge cat face with gray, radiant whiskers looking directly at the beholder. Most of the others thought of the cat in lateral view or profile. These variant and vagrant individual impressions naturally appeared on the camera before the other ways were co-ordinated, and the reflex influences came back from all to one, regulating and co-ordinating the thought of the cat. Thus these preliminary impressions are recorded as ghost pictures in various places about the plate before the ultimate composite view was achieved. The delay in this regard has darkened the centre picture, interfering a little with its perfection of definition. This darkening would probably appear in other experiments on account of the long exposure (sixteen minutes) thought necessary for a picture of this kind, in which odic magnetism is made to take the place of light.

On the cat's cheek is a curious black spot or stigma which has not been fully accounted for. From its sharpness of definition it must stand in some relation to each of the seven persons whose thoughts were centred upon it. One suggestion was that this was the blind spot on the retina in each of the sympsychographers. But the blind spot marks the point of entrance of the nerve which goes back to the brain. While it may not have visual power, it is not unlikely that it is a point of special activity in ideography. This suggests that the black stigma may be the yellow spot, or the macula lutea, the point of acute vision, a region on the retina where odic forces would naturally be absent. Mr. Marvin himself inclines to the opinion that a microscopic examination of the negative will show that this stigma has likewise the form of a cat, and that it will be found to be an idiomorphic germ or centrum where the co-ordinate thought of the cat has first impinged on the plate, and from which the image of the cat has concentrically arisen.

Meanwhile the cat of Mr. Thompson, the janitor, who alone could answer this question, lay in the darkness under the warm stove and purred.

DAVID STARR JORDAN.

THE ALLEGED PHOTOGRAPH OF THE RETINA OF THE HUMAN EYE.



YERKES'S BIG LENSES READY.

The big lenses which Alvan Clark, the famous optician, has been making for the Yerkes telescope at the University of Chicago are completed and ready to be shipped as soon as the building there is ready to receive them. The lenses are the largest in the world, being forty inches in diameter, while those of the famous Lick telescope are only thirty-six inches.

Some idea of their value may be had from the fact that if the building is not got in shape to receive them this Summer they will be held over until another year, because the owner would not dare to take the risk of sending them in cold weather, on account of the brittleness of glass when cold.

Even if shipped in warm weather, the care which will be taken of them is remarkable. Each lens will be sewed up in cotton bannel. It will then be placed in a box filled with the finest curled hair, closely packed on every side, so that the contents will be immovable. This box will then be hermetically sealed and placed inside another box, the space between being filled with small springs, so designed as to obviate any jar from the train.

The lenses will be shipped in a special parlor car, chartered for the purpose. Mr. Clark will go with them, and also two assistants, and one of the three will be on guard day and night to see that the precious pieces of glass receive no jar.

These lenses represent years and years of patient work by the man who is probably the most expert in that line of work of any one in the world. Mr. Clark himself has worked on them for a year after they were so perfect that no other scientific man could have told, either by look or measurement, that they were not flawless.

It is probable that these glasses will always remain the finest in the world. Theoretically there is no reason why lenses of any size may not be made, but in practice the chance of there being conditions which would not allow of the development of a glass larger than these are so great that it is not likely that one will ever be made.

Big Beasts a Million Years Old Resurrected in Our Museum.

Professor Osborne, of the Natural History Museum in the Park, Writes of the Interesting Old Mammoths, and How They Looked Ages and Ages Ago.

Think of animals a million years old!

Animals are always interesting, and we spend years studying the cat and the kangaroo, and the ape and the sea serpent, with the most amazing results. But how commonplace—strange, uncanny and almost human, as they often seem—are they compared to such fascinating fellows as sported on the globe ages before the first spade of earth was upturned under Babylon.

Think how interesting the primeval Hagenbeck must have been with a trained band of Patriofelli, who had teeth like a cat, enormous tails, webbed feet and masses of jaw muscles between the ears. Imagine the old maids of those prehistoric days taming and patting a protoeras with its profusion of bony horns, a pair between the ears, a smaller pair between the eyes, and two bony plates behind the nostrils, under which were two sharp tusks—a sort of battlemented buck. And just fancy for a moment what fun the Fliegende Blätter artist would have with a family of monsters like that printed on this page, whose heads look like almost anything we have ever seen in the animal world from a game cock to a rhinoceros.

But these animals are no joke. They are of the soberest, most serious, dry as dust actually. And they once lived and foraged, and did their enemies to death on the great coastlands of North America, along with the six-horned protoeras, of the ancient Black Hills of Dakota, the giant, pig-like mammoth, the great four-horned mammoth, the two-foot tiger, the wolf, the terrible, blood-thirsty ogreina wolf, the ogreina, and the ogreina, 1000 years ago!

In the current Century Professor Henry Fairfield Osborne, Curator of Paleontology in the American Museum of Natural History, record has reconstructed in vivid words as appeared, these awful creatures of the past, compared to which our modern monsters wouldn't frighten babies to sleep, and out of the fossil bones, buried underneath three miles of rock, Mr. Osborne has reconstructed them in "living pictures" that are as spring, terrible and most entertaining.

The beasts pictured on this page are a happy family—the family Titanotheres—bull, cow and calf, from the South Dakota lake basin. The artist and the hisorian have brought life into them from the mountain skeletons and skulls strewn away in a museum. As they are not highly interesting and as natural as if they were living in the mud today instead of the mud of a million years ago!

The Titanotheres is but one of a group of nine of the once formidable, now funny, prehistoric beasts which have been dug up, as it were, and brought to life again. Their habits and processes were as wonderful as they are amusing and queer. Some Titanotheres, for instance, perhaps the most curious of the time, South Dakota Lake, as we may call it, was no feral purren or upstart. He boasted a family tree branching back to a small tribe which lived in a modest way beside the Wasatch Lake some half million years before. These small but hardy ancestors had seen the Titanotheres swell in size, take on horns, and disappear.

Apparently no record of this fact was preserved, for hardly had the Titanotheres gone to earth when the Titanotheres family, unmindful of its fate attending horns and bulk began to develop horns which sprouted like humps over the eyes, as may be seen in the little calf. For a while the males and females had humps of the same moderate size, but as the premium upon horns rose, the old bulls made great capital of them, fighting each other, and butting the females who would not return their courtship—a fact attested by broken ribs.

Finally these horns attained a prodigious size in the bulls, branching off from the very end of the snout, unlike anything in existing nature. In the meantime this "Titanbeast," as Leidy well named him, acquired a great hump upon his back nearly ten feet above the ground, while he stretched out to a length of fourteen feet, and expanded to a weight of two tons. He increased in number, also, as one sees in the scores of his petrified bones. This prosperity was, however, fatal, for in the stratum above not a trace of this family remains.

"It is difficult to assign the cause of this sudden exit; it was

certainly not lack of brains. Vast fields, extensive droughts, cold waves, epidemics, suggest themselves as possible causes, but change of flora seems the more probable. The Titanotheres grunting teeth was not of a type which could adapt itself even to a slight change of vegetation, and this animal died out at the very climax of his greatness."

These Titanotheres, who had risen up and disappeared a half million years almost before the advent of the Titanotheres, were huge otter-like animals who dined off alligators and delicate entoments of that sort.

"This beast," to quote Professor Osborn again, "destined to yield the first fragment of his jaw-bone some 100,000 years later to the veteran Joseph Leidy, and to be termed Patriofelli, shows broad feet with spreading toes, probably webbed between, as best shown in his mate snarling upon the bank. A short forehead, a few sharp teeth like those of the cat, a very long body, and an extremely powerful tail indicate that he is a swimmer, and could follow the alligator into the water if necessary." "The animal's chief distinction, however, is its extremely small brain; for, while his whole frame nearly equals that of a tiger, his brain is little larger than that of a terrier dog, the impression of a well-rounded head being entirely due to the large masses of jaw-muscles between the ears. This lack of brain-power was apparently a costly defect in the Patriofelli family; for, for all as these animals were in frame and muscular development, they appear to have gone under in the struggle for existence."

And then there was the four-toed horse, so utterly distinct from the other big beasts of those days. He was swift, alert, elegant, only sixteen inches high, with legs like lead pencils.

The large eyes are much further forward than in the horse. He could readily hide among the taller stalks, and it is possible that he had the beginning of protective stripes imitating deep shadows upon his neck and mane. In his hair and coloring, however, we pass into pure conjecture. His well-worn, fluted front teeth indicate that he was already a cropper or cutter, and the evident secret of his triumphant persistence was his prehensile contemplative is that he learned to browse just about the time that grasses began to appear. He was the ancestor of the titax.

And then, say it if you will, a half million years was nothing as a land mark. The years in slowly, slowly passing evolved a pig-like creature, but such a pig. He was a pig. He had bristles, a great shaggy mane, dewlaps swinging from great bony knobs under the chin and jaws. He was named a glunk among swine.

There is no doubt that the Elotrother was a pig of the first rank, and thoroughly cosmopolitan in his range. While the Titanotheres were extant he maintained the humble size of the tapir, but when these rivals and the swimming rhinoceroses passed away the reign of the giant hogs began. They acquired skulls nearly four feet long, armed with huge cheek bones and under jaw-plates, powerful upper limbs, and narrow, stilted feet, differing from those of the pig in the absence of dew-claws; the shoulders rose into a hump, but the chest was shallow and feeble. The open mouth displayed a row of pointed front teeth used in rooting and grubbing, as shown in the animal on the bank.

And then the glunk pig passed away. "Thus," ends Professor Osborn, "we conclude a glimpse of two phases of ancient life in the Western lakes, two brief episodes out of hundreds in the long history of the great West."

"All these monsters had their day, while the sun shone, the birds warbled, the insects hummed over thousands of miles of water and luxuriant sub-tropical bloom. Meanwhile the Western continent slowly rose, the Sierra shut off more and more of the sweet influences of the Pacific, and before the arrival of man this splendid assemblage of life was finally replaced by the hardy animals of the hills, the small and colorless denizens of the desert, and the remnants of the plains. The complete restoration of the glories of that earlier era is the dream and ambition of the fossil hunter."

One million years ago they lived, these queer four-toed horses and monstrous snouted rhinoceri. The latest discoveries in Babylon, which the Journal told about last Sunday, take the world's history back only about 6,000 years. Multiply that 100 times and then you approximate the date when the last of these strange prehistoric creatures turned up his toes and died. And the dream of the fossil hunter is as yet not one-half realized.



TITANOTHERE FAMILY--BULL, COW AND CALF--OF THE SOUTH DAKOTA LAKE BASIN

(From a mounted skeleton and skulls in the museum.)